



U.S. DEPARTMENT OF
ENERGY

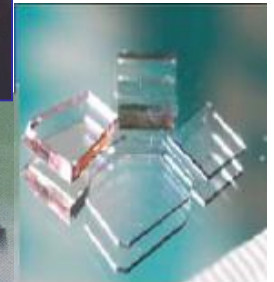
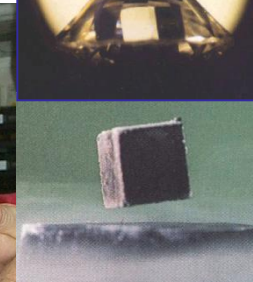
Energy Frontier Research in Extreme Environments Ho-kwang Mao (Carnegie Institution)

The EFree Center will allow us to expand our fundamental studies of materials under extreme environments while at the same time focus our research on solutions needed to address major energy challenges facing the nation and the world.

**Discovery
at high
pressures**



**Recovery
for energy
application**



High-pressure studies will be conducted for discoveries of novel materials with optimal properties, including fuels with exceedingly high hydrogen contents, superconductors at record high temperatures, and key components resistive to extremely harsh environments. We will design alternative routes to bring the novel materials to ambient conditions for energy applications.



Pioneering
Science and
Technology



an Office of Basic Energy Sciences
Energy Frontier Research Center